

Appendix 7-O

**BEAR CREEK STREAM
ALTERATION PERMIT**



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

September 2, 1992

Norman H. Baugertter
Governor
Dee C. Hansen
Executive Director
Robert L. Morgan
State Engineer

1636 West North Temple, Suite 220
Salt Lake City, Utah 84116-3156
801-538-7240

W J Owen
Co Op Mining Company
P O Box 1245
Huntington UT 84528

RE: Stream Channel Alteration Permit Number 92-93-02SA to install a 60" culvert in Bear Creek.
EXPIRATION DATE: September 2, 1993

Gentlemen:

Your application to Alter Natural Stream Number 92-93-02SA is hereby approved pursuant to the requirements of Section 73-3-29 of the Utah Code Annotated, 1953. This approval also constitutes compliance with Section 404 (e) of the Clean Water Act (33 USC 1344) pursuant to General Permit 040 issued to the State of Utah by the U.S. Army Corps of Engineers on October 15, 1987.

Work performed under this permit is subject to the following conditions:

1. Work should be accomplished during a period of low flow. Sediment introduced into stream flows during construction must be controlled to prevent increases in turbidity downstream. This can be accomplished either by diverting flows away from the construction area or by constructing sediment control structures.
2. Impacts to the stream channel and surrounding environment must be minimized. Vegetation should not be destroyed, but if some disturbance is necessary, then revegetating with native species will be required, especially replacement of woody shrubs. The channel contours and configuration must not be changed.
3. Riprap must only consist of clean, properly sized, angular rock. Riprap must be keyed deeply into the streambed to prevent undercutting. A filter should be placed behind riprap if necessary (i.e. soils are fine grained, non-cohesive, and erodible). Material such as bricks, concrete, or other demolition debris or refuse will not be allowed.
4. Wet cement is toxic to aquatic organisms, and its introduction into waters of the United States would constitute a violation of the Clean Water Act. Wet cement or concrete may not be allowed to enter stream flows. Water must be excluded from areas where concrete or cement is used until it has set. Contaminated water pumped from the construction area may not be discharged in a manner to allow it to enter flows. Equipment used during this type of work must be washed well away from the channel.

Page 2
Co-Op Mining Company
September 2, 1992

Within 30 days after the completion of this project, the State Engineer's office must be contacted for a compliance inspection. Failure to provide such notification would invalidate U. S. Army Corps of Engineers General Permit 040, thereby placing the applicant in violation of Section 404 of the Clean Water Act.

Arrangements for this compliance may be made through either of the contacts listed below:

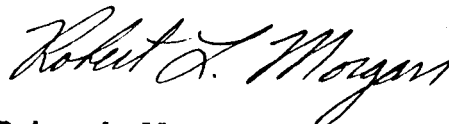
Jim Wells
Mark Page

Division of Water Rights/Dam Safety
Regional Engineer

This Decision is subject to the provisions of Rule R655-6 of the Division of Water Rights and to Sections 63-46b-13 and 73-3-14 of the Utah Code Annotated, 1953 as amended, which provide for filing either a Request for Reconsideration with the State Engineer, or an appeal with the appropriate District Court. A Request for Reconsideration is not a prerequisite for a court appeal. A court appeal must be filed within 30 days after the date of this Decision, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A request for Reconsideration is considered denied when no action is taken 20 days after the Request is filed.

If you have any questions or need further clarification, please feel free to contact Jim Wells at 538-7374.

Sincerely,



Robert L. Morgan, P.E.
State Engineer

RLM/jw/sh

pc: Brooks Carter - Corps of Engineers
Bob Mairley - EPA
Bob Freeman - U. S. Fish & Wildlife
Jim Dykman - State History
Carolyn Wright - State Planning
Mark Page - Regional Engineer
Ken Phippen - Regional Wildlife Habitat Manager
Habitat Manager - Wildlife Resources

PERMIT APPLICATION

TO ALTER A NATURAL CHANNEL IN THE STATE OF UTAH

1

Application Number

92-93-0254

Applicant's Name (Last, First, M.I.) Co-Op Mining Company		Authorized Agent W. J. Owen		Telephone No. & Area Code (801) 381-2450
Address (Street, RFD, Box Number, City, State, Zip) P.O. Box 1245, Huntington, Utah 84528				
Quarter Section(s) SW $\frac{1}{4}$, NW $\frac{1}{4}$		Section(s) Sec. 25	Township(s) T16S	Range(s) & Base R7E SLB&M
County Emery County	Watercourse to be altered Bear Creek			Drainage Area Bear Canyon
Common Description or Address of Proposed Project Bear Canyon Co-Op Mine				

2 Nature of proposed alteration (Check applicable boxes)

- | | | | |
|---|--|--|---|
| <input type="checkbox"/> fill | <input type="checkbox"/> excavate | <input type="checkbox"/> bridge | <input checked="" type="checkbox"/> culvert |
| <input type="checkbox"/> remove | <input type="checkbox"/> construct | <input type="checkbox"/> riprap | <input type="checkbox"/> wetland |
| <input type="checkbox"/> abandon | <input type="checkbox"/> realign | <input type="checkbox"/> channel | <input type="checkbox"/> obstruction |
| <input type="checkbox"/> install | <input type="checkbox"/> maintain | <input type="checkbox"/> diversion works | <input type="checkbox"/> watercourse |
| <input checked="" type="checkbox"/> bank protection | <input checked="" type="checkbox"/> instream structure | <input type="checkbox"/> other | <input type="checkbox"/> other |

3 Estimated Cost of Project

\$10,000.00 to 20,000.00

4 Project Plans

Plans included? yes Number of attachments THREE

5 Brief Explanation of Project

Install 60" Culvert, Approx. 30 linear feet, in Bear Creek. Reinforce Bank with riprap in area of a proposed sediment pond outlet.

6 Justification (Explain why this project is needed)

1. Build new facilities

7 Detrimental Effects (Anticipated changes to the water and related land resources, including unavoidable detrimental effects)

Incidental increase in disturbed area. No apparent long-term detrimental effects.

8 Alternatives (other alternatives to the proposed action)

Maintain the status quo

9 Names and addresses of adjoining property owners, lessees, etc.

COP Development Co.
3140 South Main Street
Salt Lake City, Utah 84115

10 Estimated Starting Date of Project

July 1992

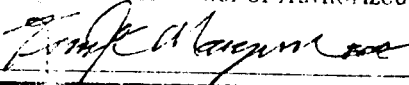
Estimated Completion Date of Project

September, 1992

I hereby make application pursuant to 73-2-29, Utah Code Annotated, 1953, and all other supporting rules for a permit to alter a natural channel in the State of Utah. If approved, this work will be done in accordance with conditions of approval, supporting maps, plans and other information submitted with this application. The information submitted and statements made concerning this application are true and correct to the best of my knowledge.

Signature of Owner or Authorized Agent

Date



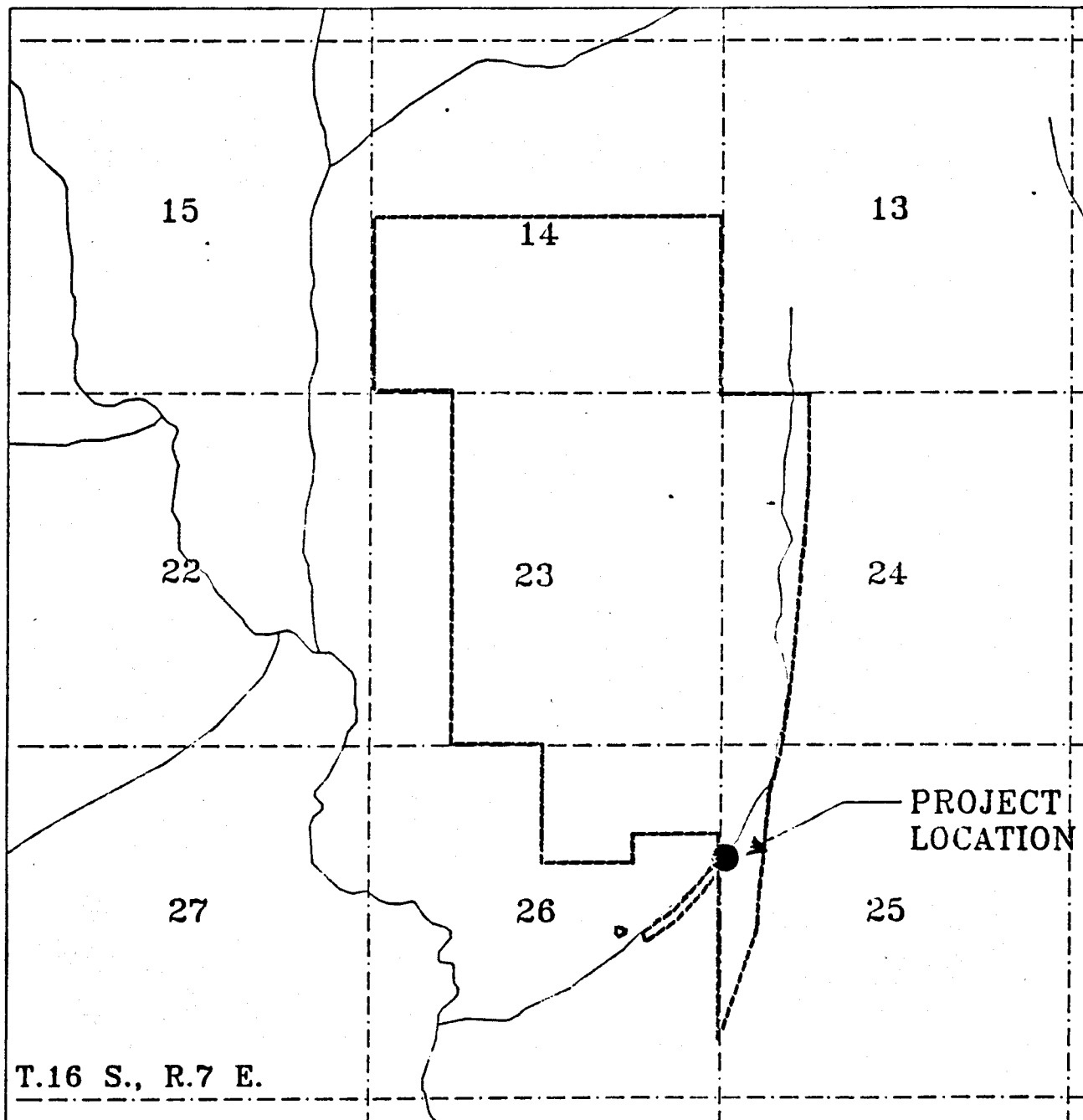
6/2/92

FOR OFFICE USE ONLY

Recommendations of the Area Engineer Approve Reject

Area Engineer

Date



KEY

BEAR CANYON PERMIT

SECTION LINE

STREAMS



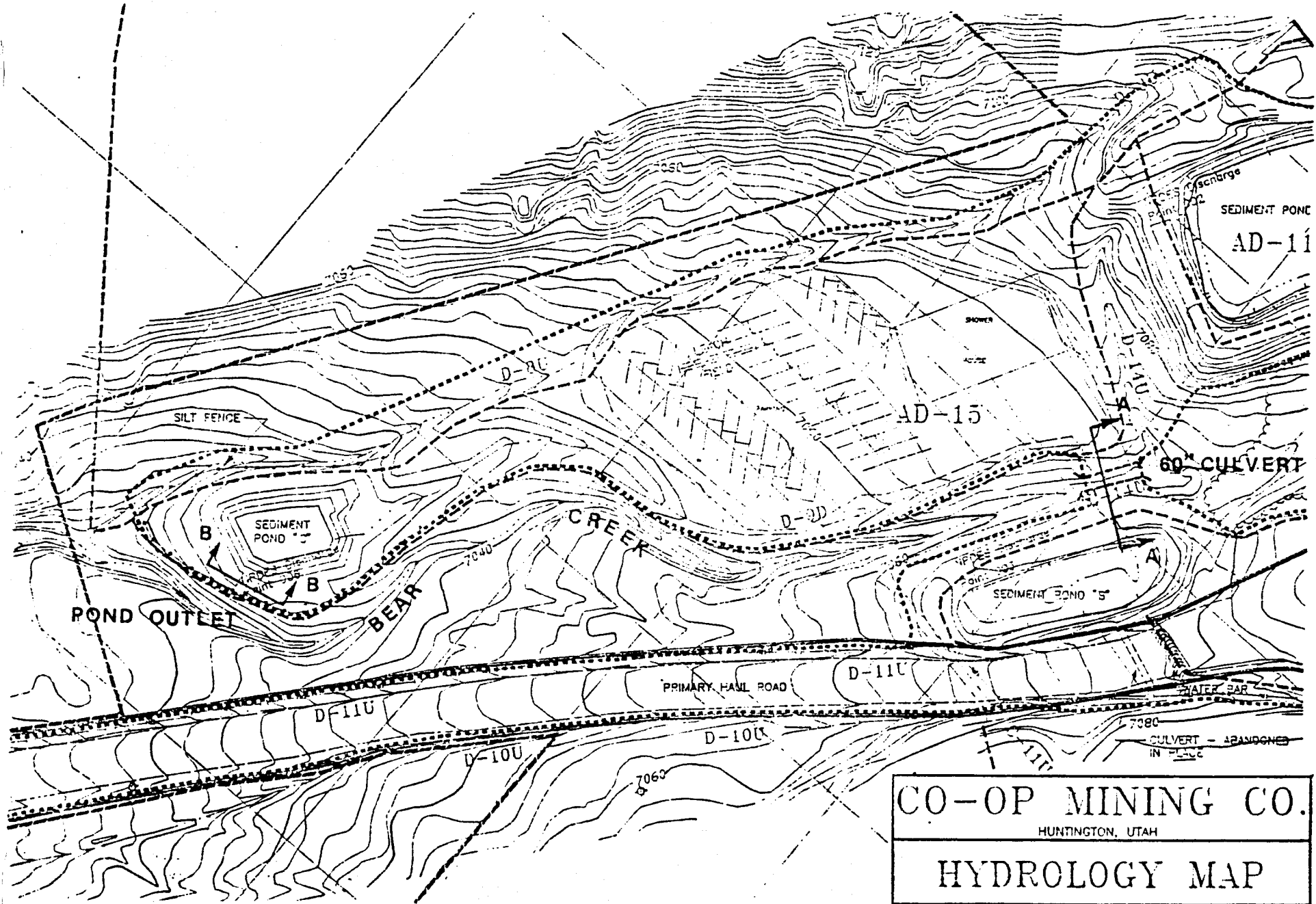
CO-OP MINING CO.

HUNTINGTON, UTAH

LOCATION MAP

SCALE: 1" = 2400' DRAWN BY: C. Reynolds DATE: 6-13-68

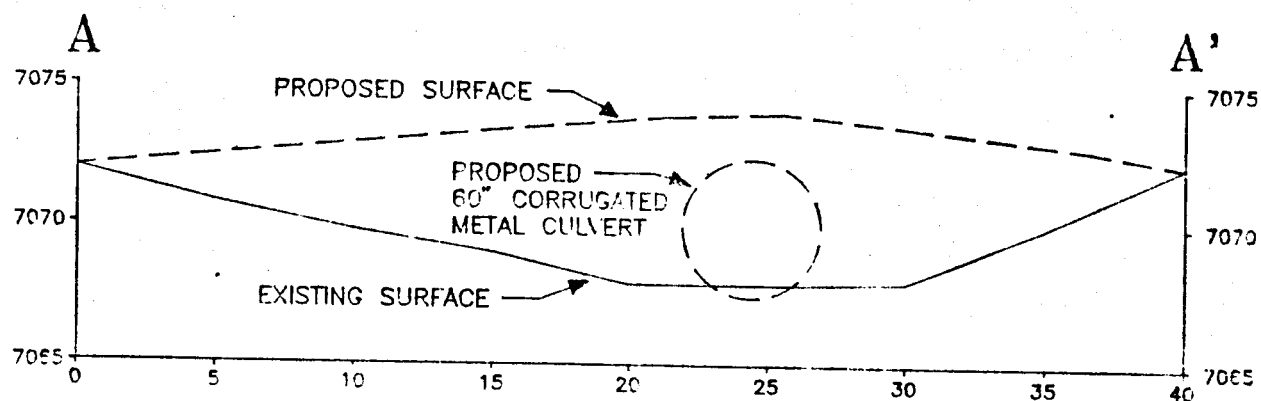
BEAR CANYON PLATE



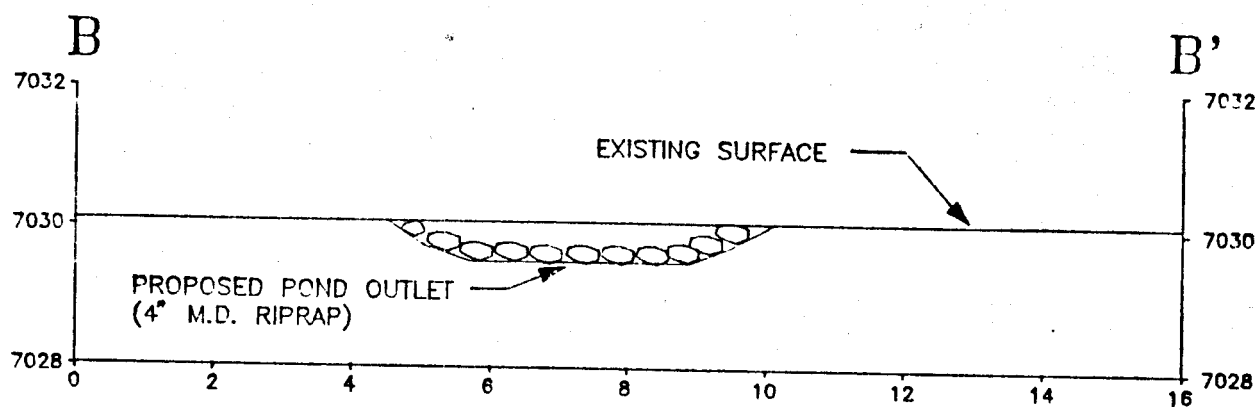
CO-OP MINING CO.		
HUNTINGTON, UTAH		
HYDROLOGY MAP		
SCALE: 1" = 30'	DRAWN BY: C. Reynolds	DATE: 7/19/91
BEAR CANYON		PLATE 7-1B

PARTIAL

SECTION A-A'



SECTION B-B'



JOINT PERMIT APPLICATION FORM

U. S. ARMY CORPS OF ENGINEERS - FOR SECTIONS 404 AND 10
UTAH STATE ENGINEER'S OFFICE - FOR NATURAL STREAM CHANNELS

Application Number _____ / _____
(Assigned by:) Corps State Engineer

Applicant's Name (Last, First M.I.) Co-Op Mining Company	Authorized Agent Charles Reynolds	Telephone Number and Area Code (435) 687-2450
---	--------------------------------------	--

Applicant's Address (Street, RFD, Box Number, City, State, Zip)
P. O. Box 1245, Huntington, Utah, 84528

PROJECT LOCATION

Quarter Section(s) A = NW¼ B = SW¼ C.D.E.F = SE¼	Section A = 25 B,C,D,E,F = 24	Township T 16 S	Range R 7 E	Base & Meridian SLBM
County Emery	Watercourse to be altered Bear Creek, Rt. Fork Drain.	Check one: <input type="checkbox"/> Within city limits <input checked="" type="checkbox"/> Outside city limits List town or nearest town: Huntington		

Project location or address:
Bear Canyon Mine, Bear Canyon

Brief description of project:
Project consists of placing 1 84" Culvert in the Bear Creek Channel to replace an existing bridge (Permit # 93-93-09SA). Also to culvert 5 locations in the Right Fork intermittent and ephemeral channels to provide for road crossing and pad area construction.

Purpose (justification) of project:
To expand mining operations into the right fork canyon for the purpose of mining the Wild Horse Ridge coal leases

Is this a single and complete project or is it part of a larger project, continuing project, or other related activities? If so, please describe the larger project or other related activities.
This is a single project, but it is associated with the Existing bear Canyon Mine operation.

If project includes the discharge of dredged or fill material:

Cubic yards of material: N/A

Acreage or square footage of waters of the United States, including wetlands, affected by the project:

Source and type of fill material:

Alternatives (other ways to accomplish the project purpose):

None

Names and addresses of adjacent property owners or other individuals who may be affected by this project:

C.O.P. Coal Development Company (Surface Landowner)
3212 Sout State St.
Salt lake City, Utah 84115

List other authorizations required by Federal, state or local governments (i.e.; National Flood Insurance Program), and the status of those authorizations.

Approval from the Utah State Division of Oil, Gas & Mining (ACT/015/025)
Application currently under review. DOGM approval pending approval of Stream Alteration permit & resolution of additional technical deficiency issues.

Estimated starting date of project

7-01-00

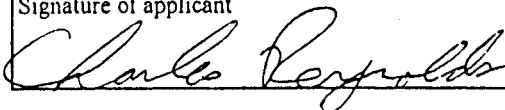
Estimated completion date

9-01-01

(If project has already been partially or totally completed, indicate date of work. Indicate existing work on drawings)

Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in the application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or am acting as the duly authorized agent of the applicant.

Signature of applicant



Date

2-3-00

I hereby certify that _____ is acting as my agent for this project.

Agent's address and telephone number

INSTRUCTIONS

Applications which do not include the following will not be processed.

For a complete application, you **MUST** include the following on 8 1/2 by 11 paper (for large projects, multiple sheets with a key may be used) Clear, hand-drawn plans approximately to scale are acceptable.

1. An accurate location map (USGS quadrangle map preferred)
2. A plan view of the proposed activity (as seen from above) including dimensions of work.
3. A cross-section view of the proposed activity (may use typical cross-section for large projects) including dimensions
4. For projects which include wetlands, an accurate wetland delineation must be prepared in accordance with the current method required by the Corps.

C.W. MINING CO.

HUNTINGTON, UTAH

PROPOSED

STREAM ALTERATION

SCALE:

1" = 1500'

DRAWN BY:

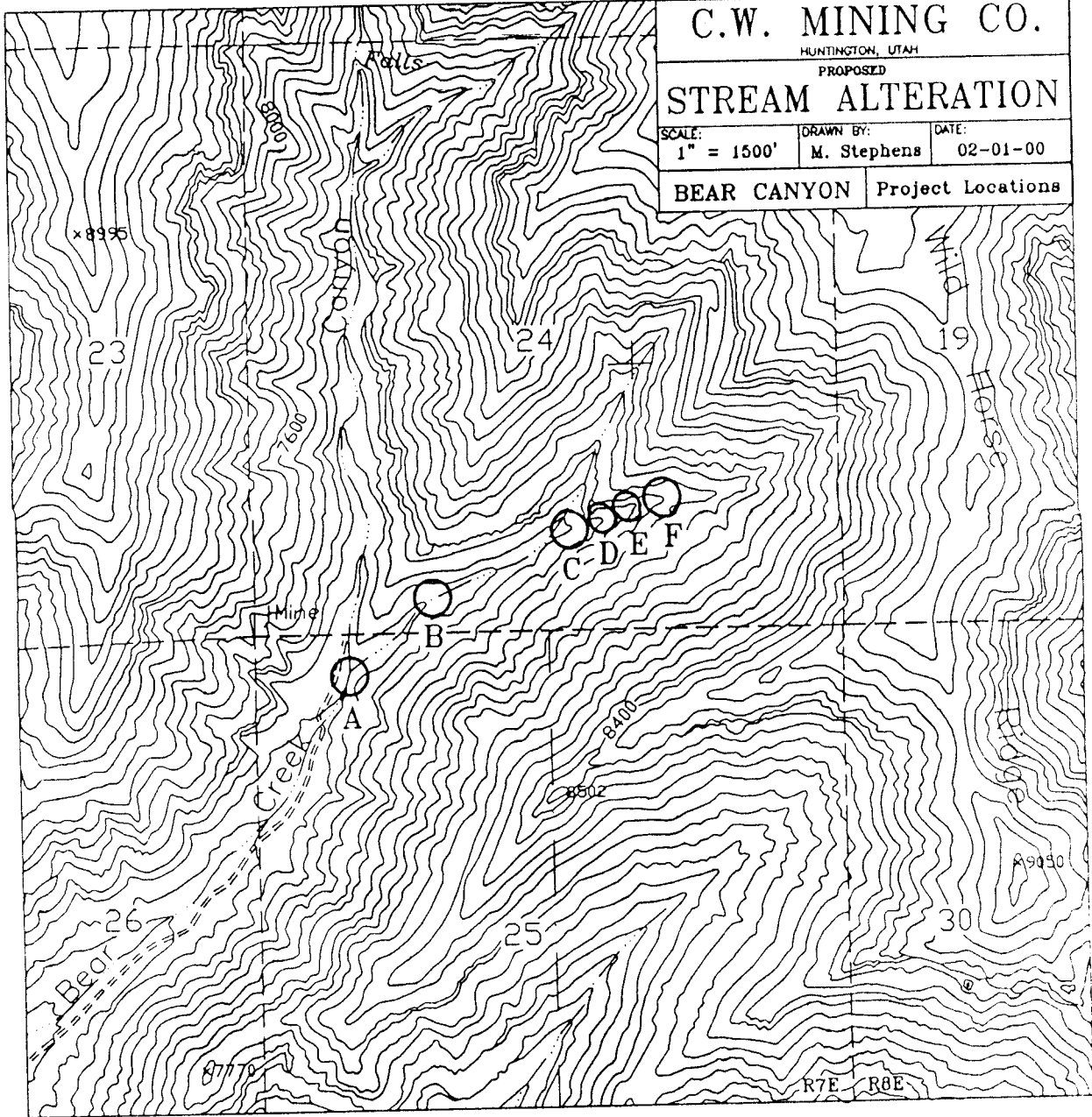
M. Stephens

DATE:

02-01-00

BEAR CANYON

Project Locations



C.W. MINING CO.

HUNTINGTON, UTAH

STREAM ALTERATION

SCALE:

1" = 25'

DRAWN BY:

S. Reynolds

DATE:

02-01-00

BEAR CANYON

PLATE A

C-350

Bear Creek

C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA A

Not To Scale

DRAWN BY

C. Reynolds

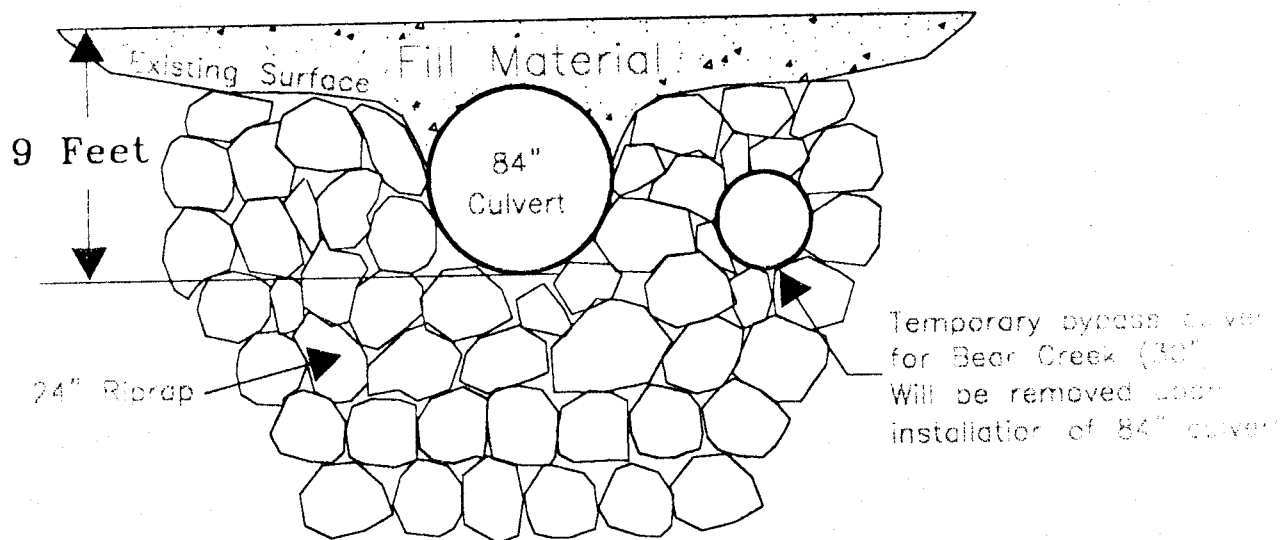
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04-14-00

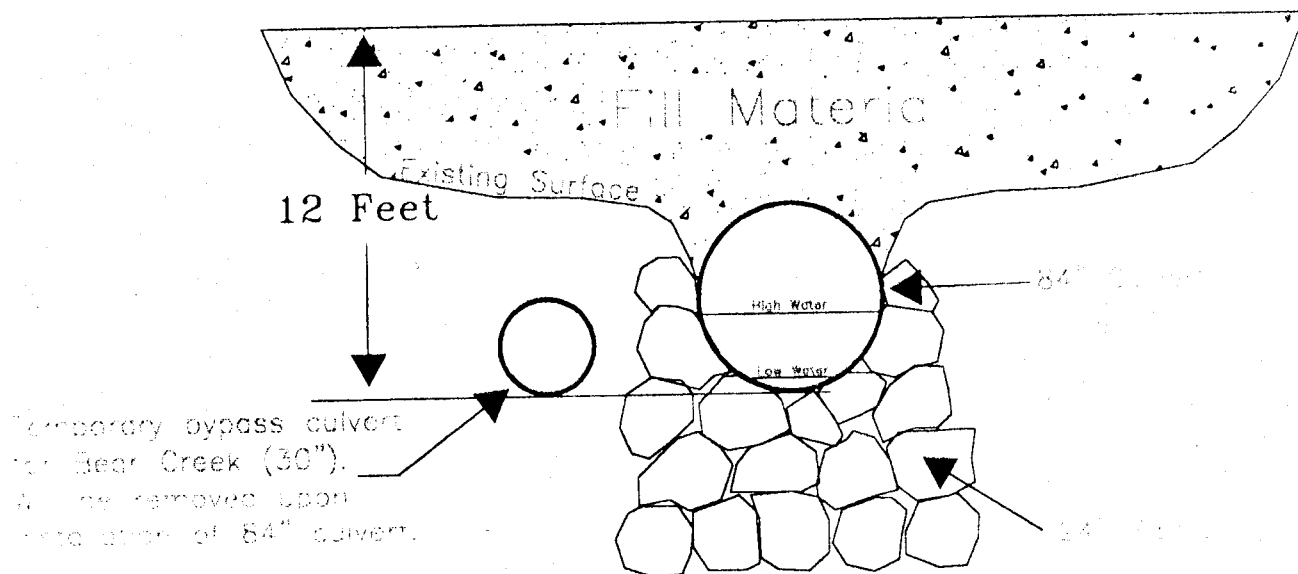
BEAR CANYON

Wild Horse Ridge

Inlet



Outlet



Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: CULVERT C-35U

Comment: SEE PLATE 7-1F

Solve For Actual Depth

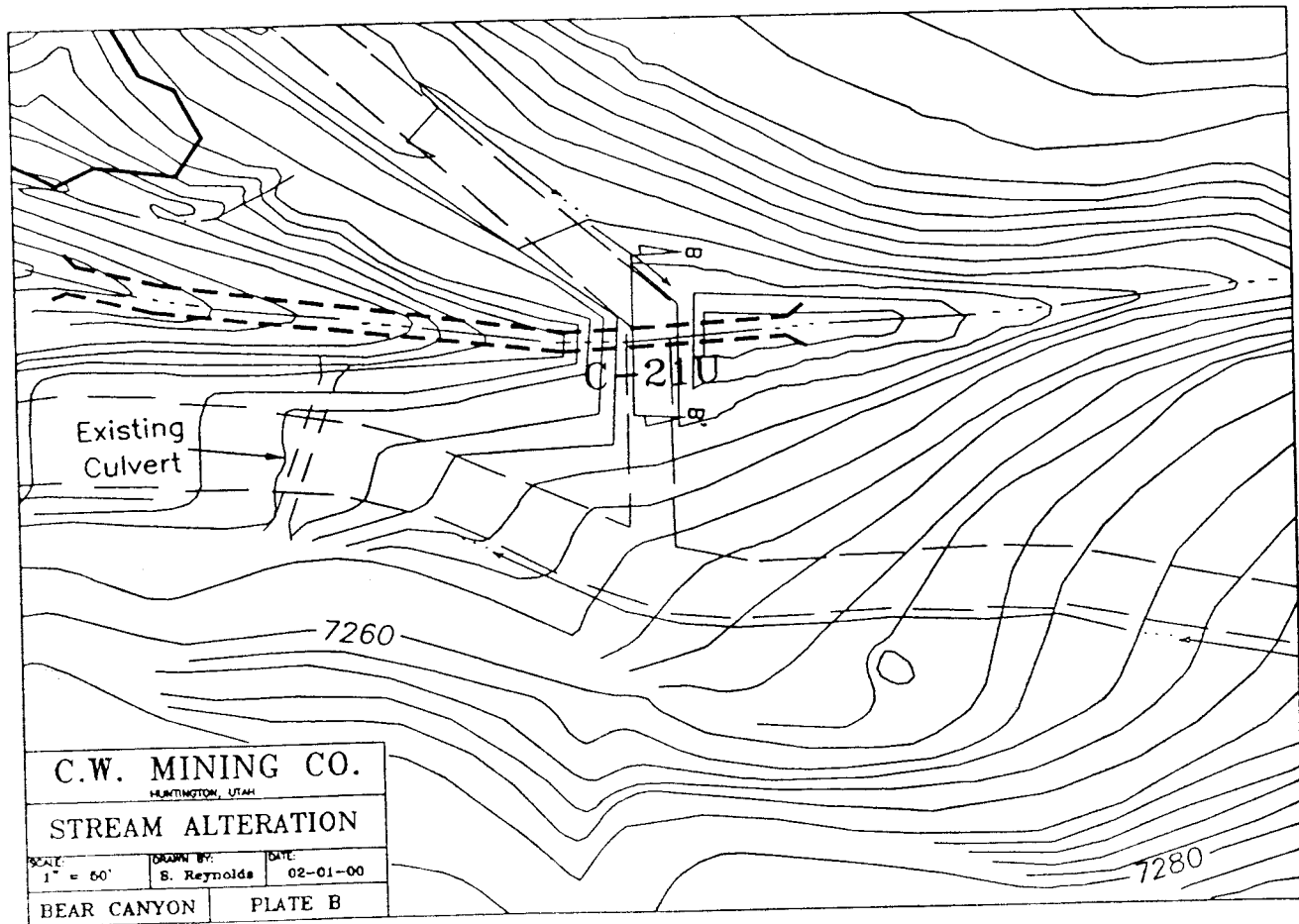
Given Input Data:

Diameter.....	5.00 ft
Slope.....	0.0600 ft/ft
Manning's n.....	0.024
Discharge.....	108.18 cfs

Computed Results:

Depth.....	1.92 ft
Velocity.....	15.56 fps
Flow Area.....	6.95 sf
Critical Depth....	2.97 ft
Critical Slope....	0.0135 ft/ft
Percent Full.....	38.43 %
Full Capacity.....	345.56 cfs
QMAX @.94D.....	371.72 cfs
Froude Number.....	2.29 (flow is Supercritical)

Minimum required riprap conditions = 24" m.d. riprap at outlet



C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA B

SCALE:

Fit

DRAWN BY:

M. Stephens

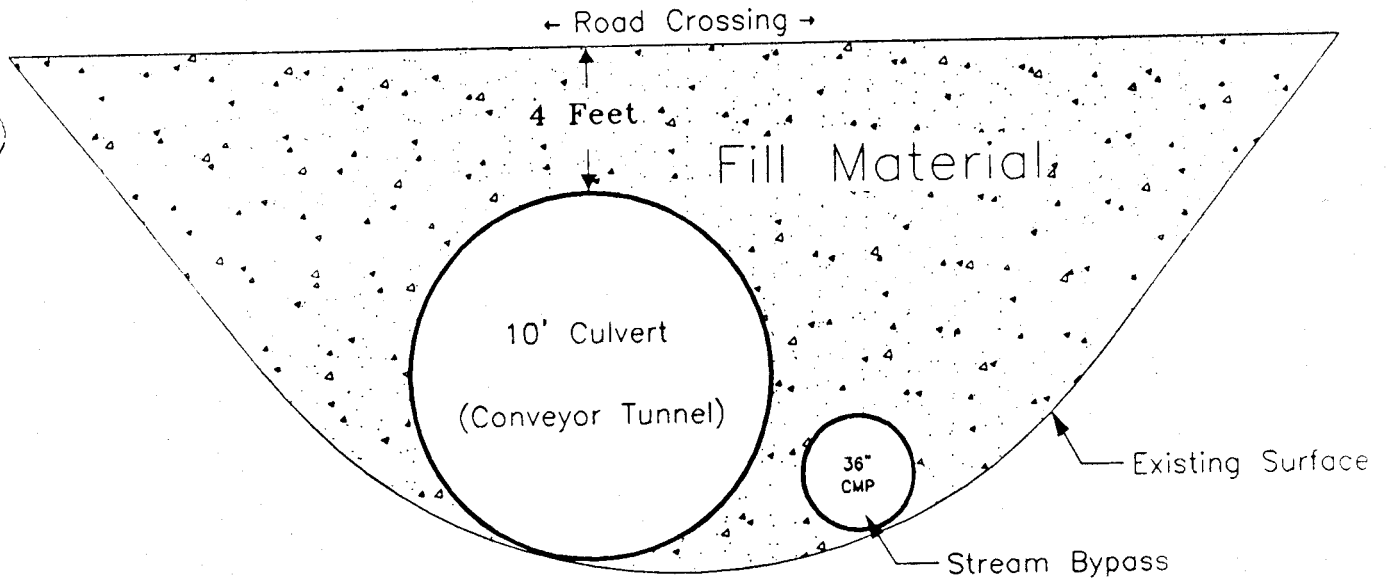
DATE:

02-01-00

BEAR CANYON

Wild Horse Ridge

CROSS-SECTION VIEW B-B'



Note: Flow In Channel Is Ephemeral

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: C-21U

Comment: SEE PLATE 7-1F

Solve For Actual Depth

Given Input Data:

Diameter.....	3.00 ft
Slope.....	0.0600 ft/ft
Manning's n.....	0.024
Discharge.....	43.09 cfs

Computed Results:

Depth.....	1.48 ft
Velocity.....	12.44 fps
Flow Area.....	3.46 sf
Critical Depth....	2.14 ft
Critical Slope....	0.0194 ft/ft
Percent Full.....	49.23 %
Full Capacity.....	88.50 cfs
QMAX @.94D.....	95.20 cfs
Froude Number.....	2.04 (flow is Supercritical)

Minimum required riprap conditions = 12" m.d. riprap at outlet

C.W. MINING CO.

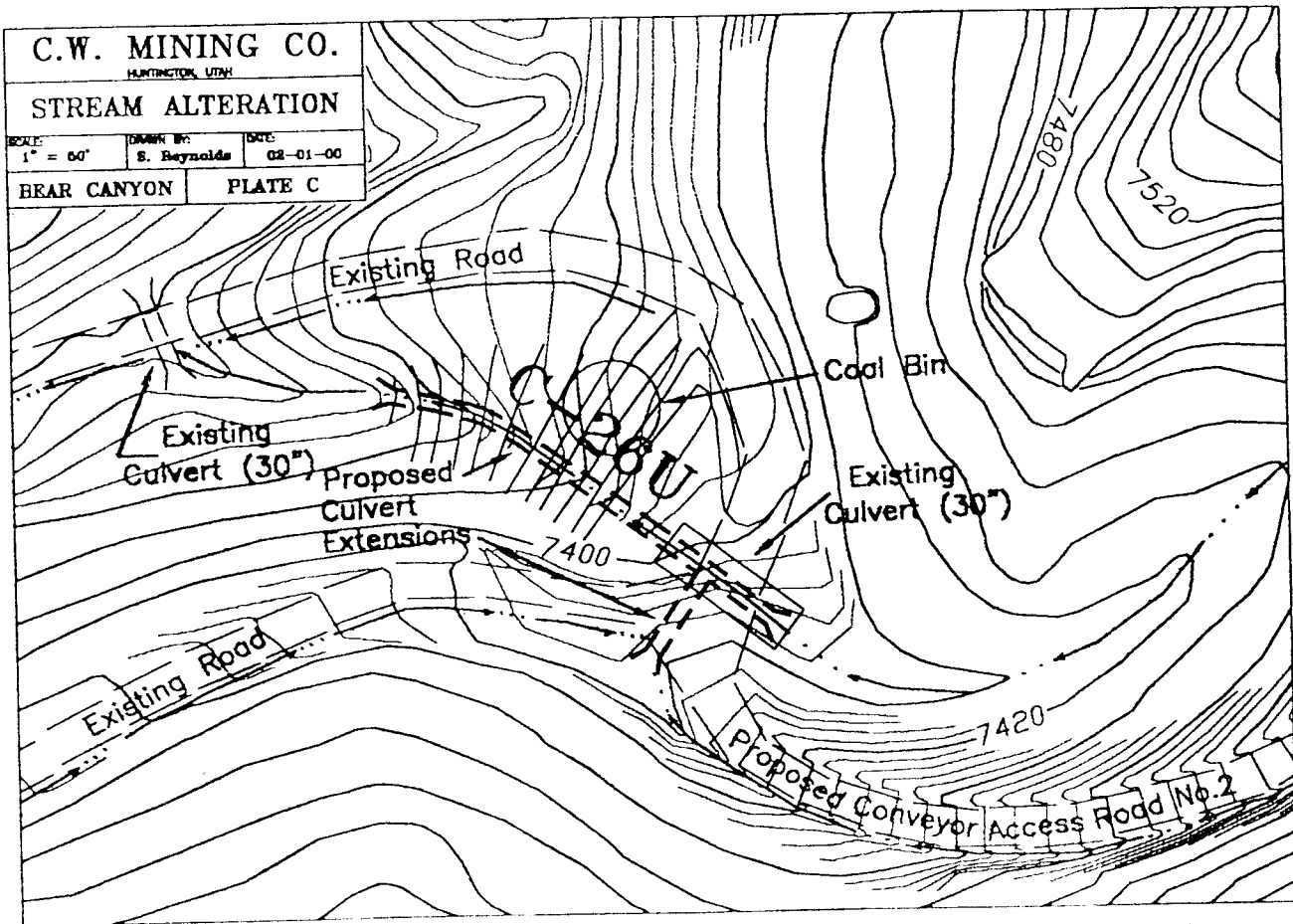
HUNTINGTON, UTAH

STREAM ALTERATION

SCALE: 1" = 60' DRAWN BY: S. Reynolds DATE: 02-01-00

BEAR CANYON

PLATE C



Proposed
Fill Contours

Existing
Contours

C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA C

SCALE:

Fit

DRAWN BY:

M. Stephens

DATE:

02-01-00

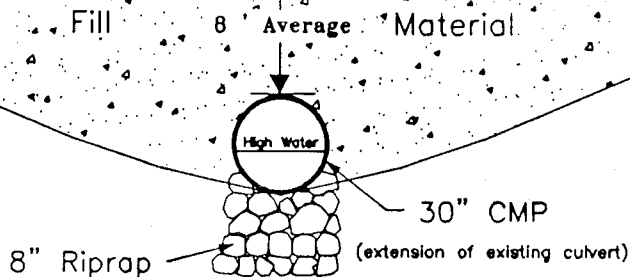
BEAR CANYON

Wild Horse Ridge

CONVEYOR

COAL
STORAGE
SILO

CONVEYOR



Note:

Flow in channel
is intermittent.

Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: CULVERT C-26U

Comment: SEE PLATE 7-1G

Solve For Actual Depth

Given Input Data:

Diameter.....	2.50 ft
Slope.....	0.0600 ft/ft
Manning's n.....	0.024
Discharge.....	19.69 cfs

Computed Results:

Depth.....	1.04 ft
Velocity.....	10.19 fps
Flow Area.....	1.93 sf
Critical Depth....	1.51 ft
Critical Slope....	0.0172 ft/ft
Percent Full.....	41.59 %
Full Capacity.....	54.42 cfs
QMAX @.94D.....	58.54 cfs
Froude Number.....	2.03 (flow is Supercritical)

Minimum required riprap conditions = 8" m.d. riprap at outlet

C.W. MINING CO.

HUNTINGTON, UTAH

STREAM ALTERATION

SCALE:

1" = 60'

DRAWN BY:

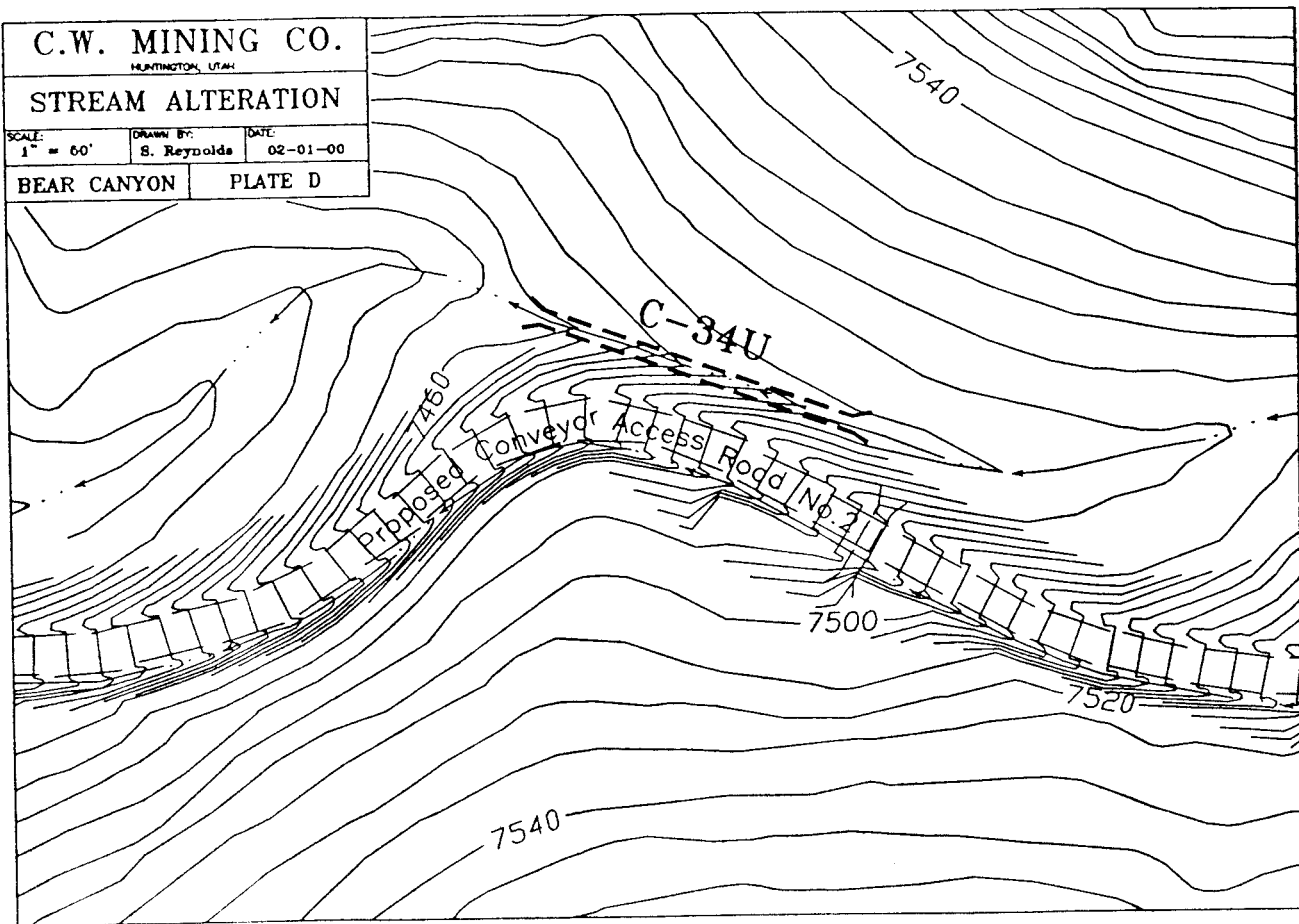
S. Reynolds

DATE:

02-01-00

BEAR CANYON

PLATE D



C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA D

SCALE:

Fit

DRAWN BY:

M. Stephens

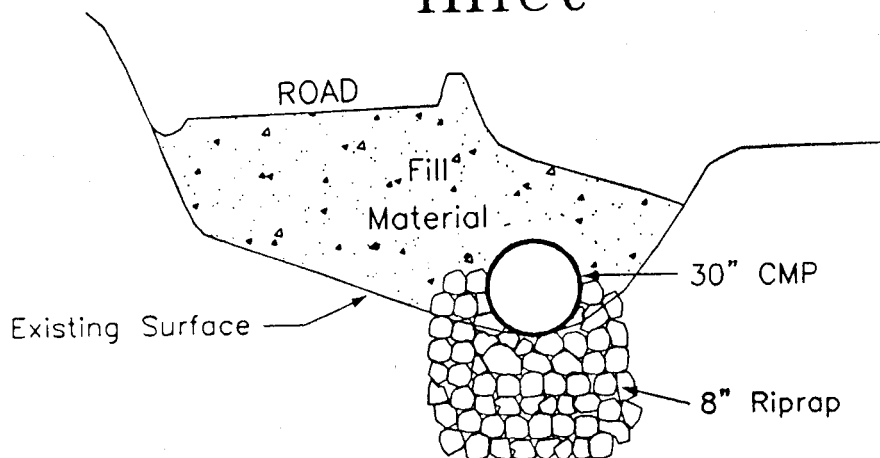
DATE:

02-01-00

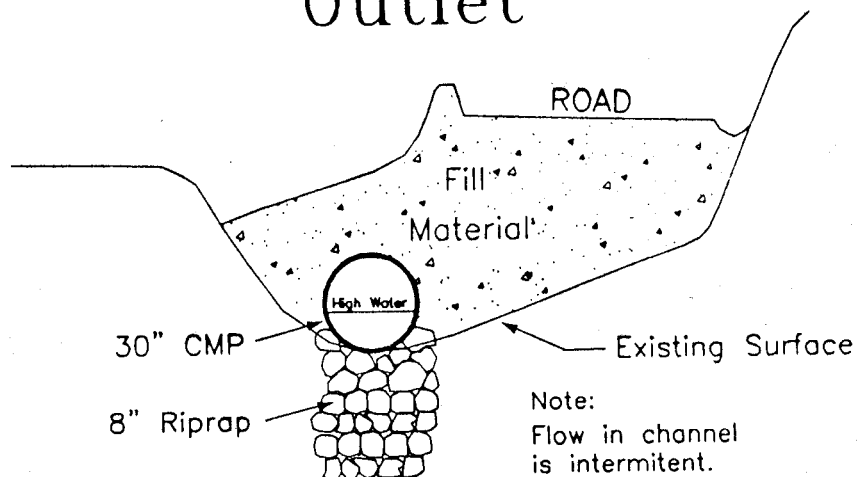
BEAR CANYON

Wild Horse Ridge

Inlet



Outlet



Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: CULVERT C-34U

Comment: SEE PLATE 7-1G

Solve For Actual Depth

Given Input Data:

Diameter.....	2.50 ft
Slope.....	0.0600 ft/ft
Manning's n.....	0.024
Discharge.....	17.86 cfs

Computed Results:

Depth.....	0.99 ft
Velocity.....	9.93 fps
Flow Area.....	1.80 sf
Critical Depth....	1.43 ft
Critical Slope....	0.0166 ft/ft
Percent Full.....	39.43 %
Full Capacity.....	54.42 cfs
QMAX @.94D.....	58.54 cfs
Froude Number.....	2.04 (flow is Supercritical)

Minimum required riprap conditions = 8" m.d. riprap at outlet

C.W. MINING CO.

HUNTINGTON, UTAH

STREAM ALTERATION

SCALE:

1" = 60'

DRAWN BY:

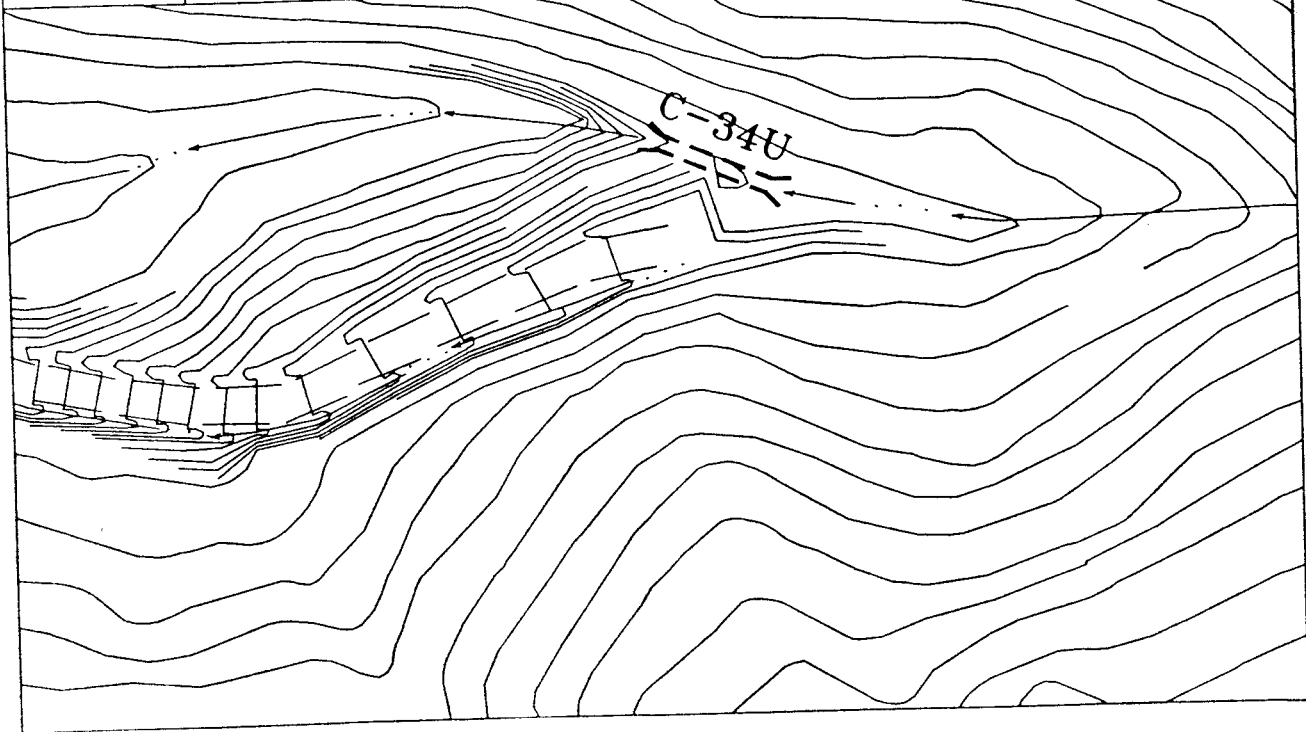
S. Reynolds

DATE:

02-01-00

BEAR CANYON

PLATE E



C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA E

SCALE:

Fit

DRAWN BY:

M. Stephens

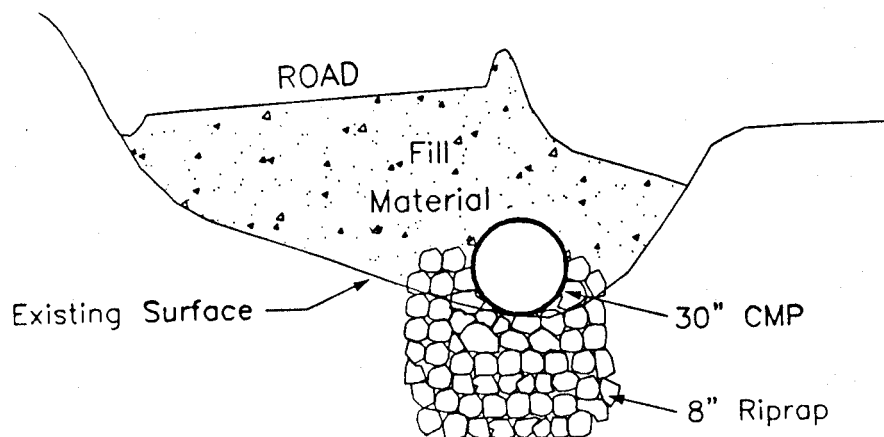
DATE:

02-01-00

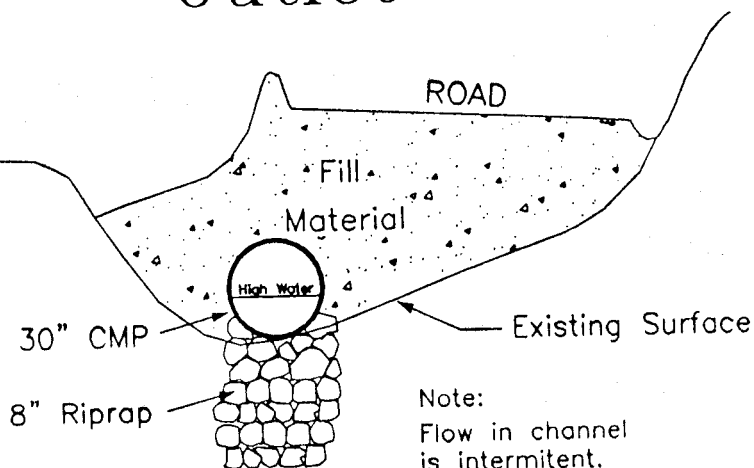
BEAR CANYON

Wild Horse Ridge

Inlet



Outlet



Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: CULVERT C-34U

Comment: SEE PLATE 7-1G

Solve For Actual Depth

Given Input Data:

Diameter.....	2.50 ft
Slope.....	0.0600 ft/ft
Manning's n.....	0.024
Discharge.....	17.86 cfs

Computed Results:

Depth.....	0.99 ft
Velocity.....	9.93 fps
Flow Area.....	1.80 sf
Critical Depth....	1.43 ft
Critical Slope....	0.0166 ft/ft
Percent Full.....	39.43 %
Full Capacity.....	54.42 cfs
QMAX @.94D.....	58.54 cfs
Froude Number.....	2.04 (flow is Supercritical)

Minimum required riprap conditions = 8" m.d. riprap at outlet

C.W. MINING CO.

HUNTINGTON, UTAH

STREAM ALTERATION

SCALE:

1" = 50'

DRAWN BY:

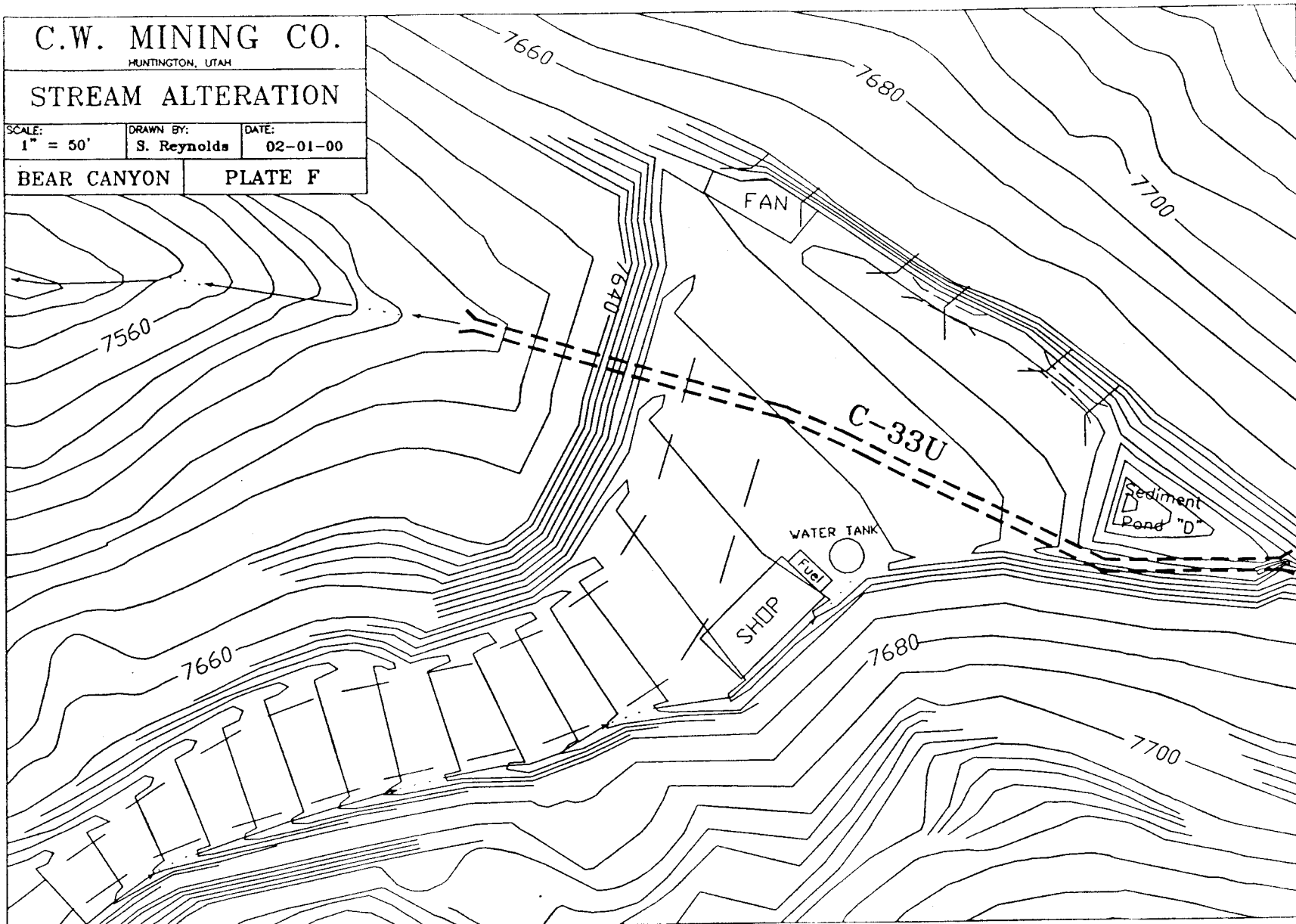
S. Reynolds

DATE:

02-01-00

BEAR CANYON

PLATE F



C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA F

SCALE:

Fit

DRAWN BY:

M. Stephens

DATE:

02-01-00

BEAR CANYON

Wild Horse Ridge

Outlet

Fill

Material

30 Feet Avg.

Existing Surface

30" Concrete Culvert

8" Riprap

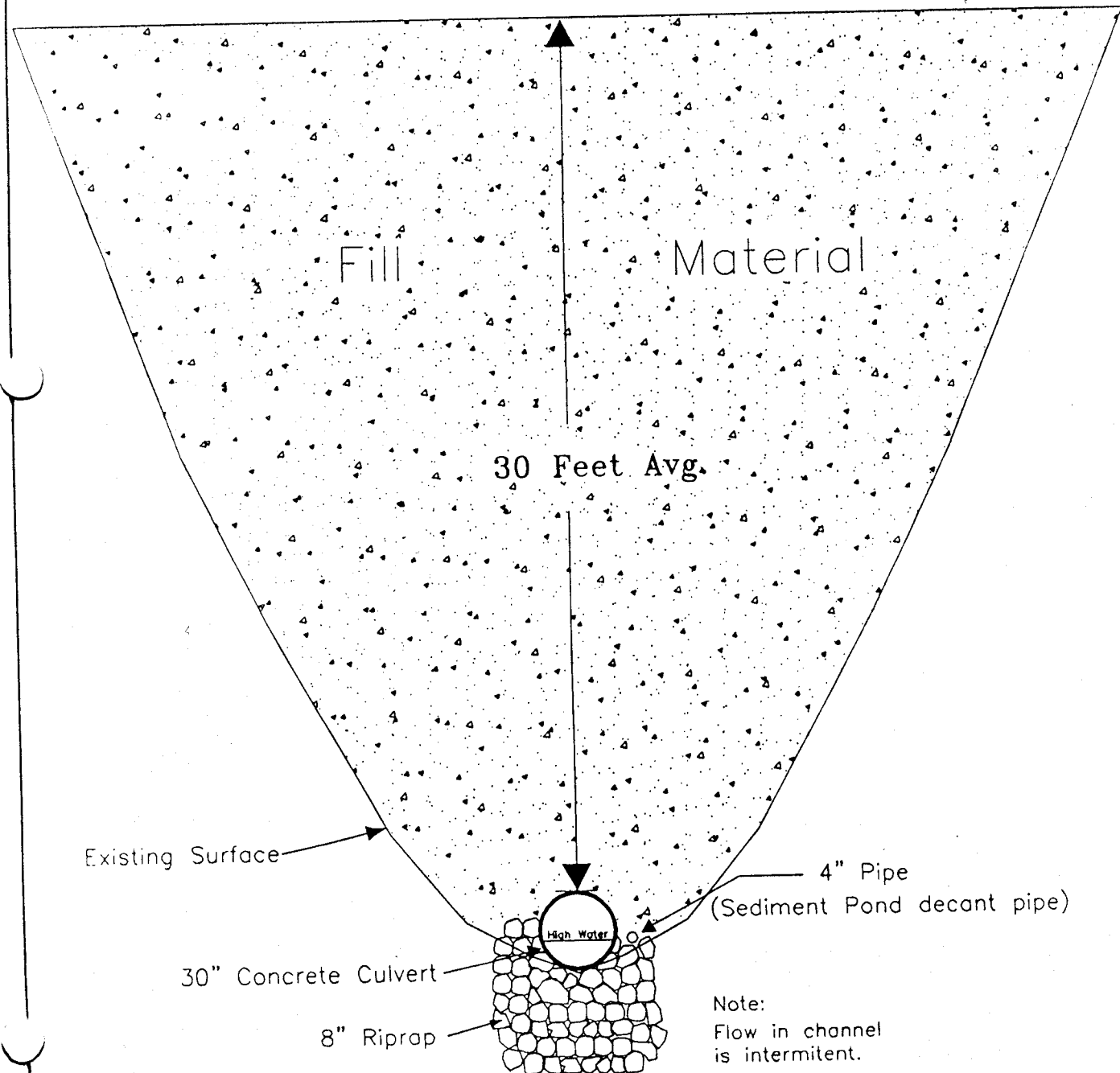
High Water

4" Pipe

(Sediment Pond decant pipe)

Note:

Flow in channel
is intermittent.



Circular Channel Analysis & Design
Solved with Manning's Equation

Open Channel - Uniform flow

Worksheet Name: CULVERT C-33U

Comment: SEE PLATE 7-1G

Solve For Actual Depth

Given Input Data:

Diameter.....	2.50 ft
Slope.....	0.0600 ft/ft
Manning's n.....	0.024
Discharge.....	14.42 cfs

Computed Results:

Depth.....	0.88 ft
Velocity.....	9.37 fps
Flow Area.....	1.54 sf
Critical Depth....	1.28 ft
Critical Slope....	0.0156 ft/ft
Percent Full.....	35.14 %
Full Capacity.....	54.42 cfs
QMAX @.94D.....	58.54 cfs
Froude Number.....	2.06 (flow is Supercritical)

Minimum required riprap conditions = 8" m.d. riprap at outlet



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Robert L. Morgan
State Engineer

1594 West North Temple, Suite 220
PO Box 146300
Salt Lake City, Utah 84114-6300
801-538-7240
801-538-7467 (Fax)

April 10, 2001

Charles Reynolds
Co-op Mining Company
P.O. Box 1245
Huntington, UT 84528

RE: Stream Channel Alteration Permit Number 00-93-01SA for placement of culverts on Bear Creek and on the right fork of Bear Creek in Emery County.
EXPIRATION DATE: April 10, 2002

Your application to Alter a Natural Stream Channel Number 00-93-01SA is hereby approved pursuant to the requirements of Section 73-3-29 of the Utah Code Annotated, 1953. This approval also constitutes compliance with Section 404 (e) of the Clean Water Act (33 USC 1344) pursuant to General Permit 040 issued to the State of Utah by the U.S. Army Corps of Engineers on October 15, 1987.

Work performed under this permit is subject to the following conditions:

1. The expiration date of this approved application is April 10, 2002. The expiration date may be extended, at the State Engineer's discretion, by submitting a written request outlining the need for the extension and the reasons for the delay in completing the proposed stream alteration.
2. A copy of this approved permit must be kept on-site at any time the work under this approved permit is in progress.
3. Culverts shall be placed at locations that will minimize the possibility of washouts. Areas adjacent to meanders must be avoided as water may be directed toward the edges, rather than the center of the culvert. Culverts must be placed at GRADE and create no change in the profile of the stream bottom to avoid upstream erosion. Fill, adjacent to the culvert, must be adequately compacted to prevent piping and washout of the crossing. Particular attention should be shown to the outlet of the Bear Creek culvert.
4. Impacts to the stream channel and surrounding environment must be minimized. Vegetation should not be destroyed, but if some disturbance is necessary, then revegetating with native species will be required, especially of woody shrubs. The channel contours and configuration must not be changed except in the case of bank contouring for stabilization purposes.

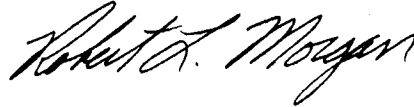
5. Work must be accomplished during a period of low flow. Sediment introduced into stream flows during construction must be controlled to prevent increases in turbidity downstream. Flows must be diverted away from the construction area using a non-erodible coffer dam.
6. Excavated material and construction debris may not be wasted in any stream channel or placed in flowing waters, this will include material such as grease, oil, joint coating, or any other possible pollutant. Excess materials must be wasted at an upland site well away from any channel. Construction materials, bedding material, excavated material, etc. may not be stockpiled in riparian or channel areas.
7. Riprap must consist of only clean, properly sized, angular rock. Riprap must be keyed deeply into the stream bed to prevent undercutting. A filter shall be placed behind riprap if necessary (i.e., if soils are fine grained, non-cohesive, and/or erodible). Demolition debris or refuse will not be allowed, nor material such as bricks, concrete, asphaltic material [either natural (tar sand, oil shale, etc.) or man made].
8. Erosion control measures and revegetation success must be monitored and reported to this office prior to the compliance inspection.
9. Removal of culverts as part of the reclamation process must follow Best Management Practices.
10. Culverts must be designed to withstand depth of fill, buildings, and construction activities. Methods such as use of concrete encased pipes may need to be utilized, especially for culverts shown on plates F and C.
11. Approval of this application does not authorize trespass, easements, rights-of-way, or any other access or land use permits. It is the responsibility of the applicant to obtain any such authorizations as may be necessary for this proposal.
12. Within 30 days after the completion of this project, the State Engineer's office must be contacted for a compliance inspection. Failure to provide such notification would invalidate U.S. Army Corps of Engineers General Permit 040, thereby placing the applicant in violation of Section 404 of the Clean Water Act.

This Decision is subject to the provisions of Rule R655-6 of the Division of Water Rights and to Sections 63-46b-13 and 73-3-14 of the Utah Code Annotated, 1953 as amended, which provide for filing either a Request for Reconsideration with the State Engineer, or an appeal with the appropriate District Court. A Request for Reconsideration must be filed with the State Engineer within 20 days of the date of this decision. However, a Request for Reconsideration is not a prerequisite for a court appeal. A court appeal must be filed within 30 days after the date of this Decision, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A Request for Reconsideration is considered denied when no action is taken 20 days after the Request is filed.

Page 3
00-93-01SA
April 10, 2001

If you have any questions or need further clarification, please contact Daren Rasmussen at 801-538-7377.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert L. Morgan". The signature is fluid and cursive, with the first name "Robert" and last name "Morgan" clearly distinguishable.

Robert L. Morgan, P.E.
State Engineer

RLM/dr/jm

pc: Mike Schwinn - Corps of Engineers
Dave Ruitter - EPA
Field Supervisor - U.S. Fish & Wildlife
Jim Dykmann - State History
Carolyn Wright - State Planning
Mark Page - Regional Engineer
Derris Jones - Regional Wildlife Habitat Manager
Bill Bradwisch - Aquatic Habitat Coordinator

JOINT PERMIT APPLICATION FORM

U. S. ARMY CORPS OF ENGINEERS - FOR SECTIONS 404 AND 10
UTAH STATE ENGINEER'S OFFICE - FOR NATURAL STREAM CHANNELS

Application Number _____ / _____
(Assigned by:) Corps State Engineer

Applicant's Name (Last, First M.I.) CO-OP Mining Company	Authorized Agent Charles Reynolds	Telephone Number and Area Code (435) 687-2450
---	--------------------------------------	--

Applicant's Address (Street, RFD, Box Number, City, State, Zip)
P.O. Box 1245 Huntington Utah, 84528

PROJECT LOCATION

Quarter Section(s) A,B = SW1/4 C = SE 1/4	Section 24	Township T16S	Range R7E	Base & Meridian SLBM
County Emery	Watercourse to be altered Bear Creek, Right Fork Drain	Check one: <input type="checkbox"/> Within city limits <input type="checkbox"/> Outside city limits List town or nearest town: Huntington		

Project location or address:
Bear Canyon Mine, Bear Canyon

Brief description of project:
At point A the stream will be culverted for 80'. At point B&C a tower will be placed over the stream and it will be disturbed during construction

Purpose (justification) of project:
Construction of Additional Facilities

Is this a single and complete project or is it part of a larger project, continuing project, or other related activities? If so, please describe the larger project or other related activities.
This project is part of the Wild Horse Ridge Surface Construction Project.

If project includes the discharge of dredged or fill material:

Cubic yards of material: N/A

Acreage or square footage of waters of the United States, including wetlands, affected by the project:

Source and type of fill material:

Alternatives (other ways to accomplish the project purpose):

None

Names and addresses of adjacent property owners or other individuals who may be affected by this project:

C.O.P. Coal Development Co. (Surface Landowner)
3212 S. State St.
Salt Lake City, Ut. 84115

List other authorizations required by Federal, state or local governments (i.e.; National Flood Insurance Program), and the status of those authorizations.

Approval from Utah State Division of Oil, Gas & Mining (ACT/015/025)
Application is currently under review.

Estimated starting date of project

8-15-01

Estimated completion date

8-29-01

(If project has already been partially or totally completed, indicate date of work. Indicate existing work on drawings)

Application is hereby made for a permit or permits to authorize the activities described herein. I certify that I am familiar with the information contained in the application, and that to the best of my knowledge and belief such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or am acting as the duly authorized agent of the applicant.

Signature of applicant

Date

I hereby certify that _____ is acting as my agent for this project.

Agent's address and telephone number

INSTRUCTIONS

Applications which do not include the following will not be processed.

For a complete application, you **MUST** include the following on 8 1/2 by 11 paper (for large projects, multiple sheets with a key may be used). Clear, hand-drawn plans approximately to scale are acceptable.

1. An accurate location map (USGS quadrangle map preferred)
2. A plan view of the proposed activity (as seen from above) including dimensions of work.
3. A cross-section view of the proposed activity (may use typical cross-section for large projects) including dimensions
4. For projects which include wetlands, an accurate wetland delineation must be prepared in accordance with the current method required by the Corps.

HUNTINGTON, UTAH

PROPOSED

SALES

$$1'' = 1500'$$

DRAWN BY:

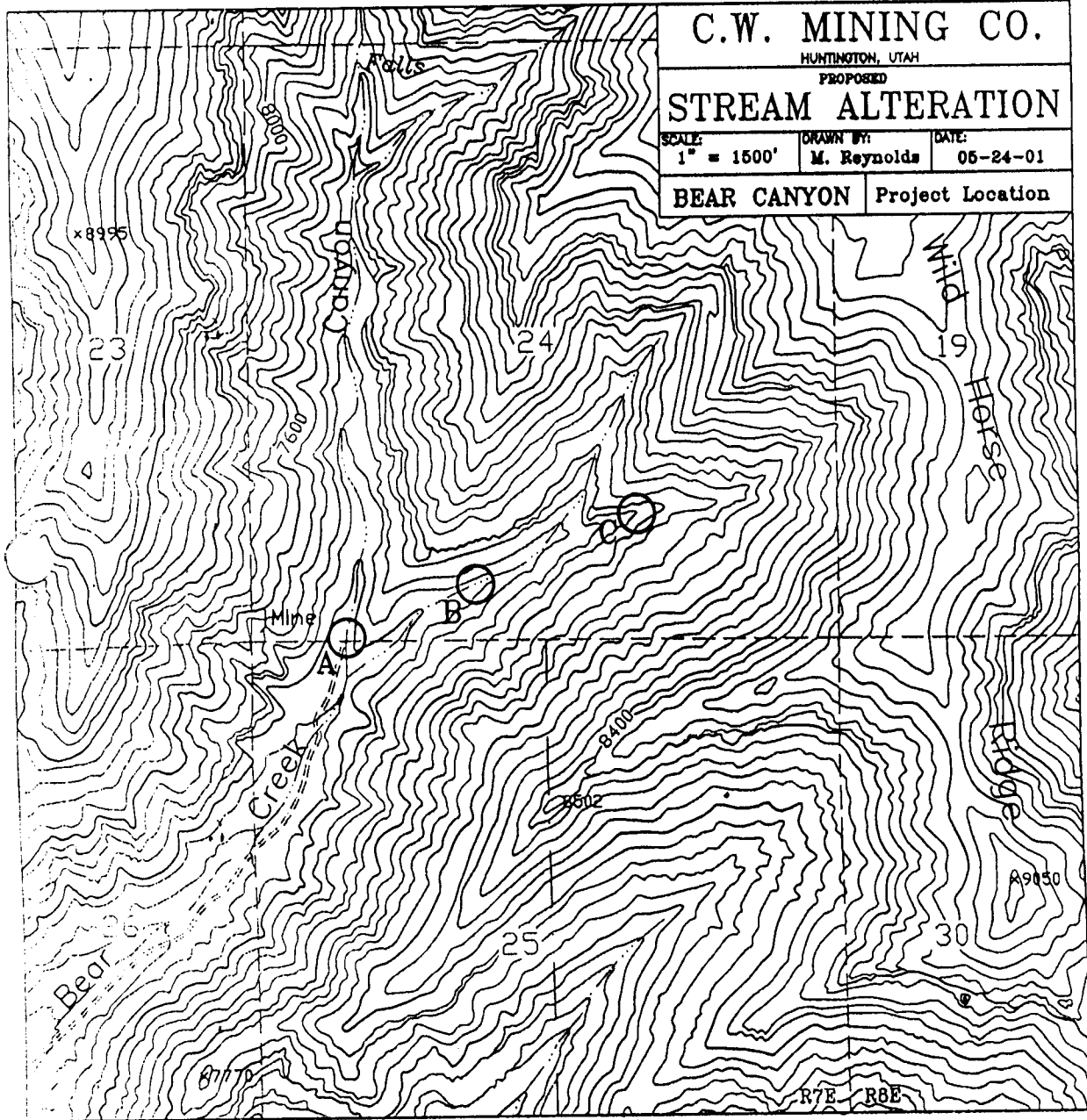
M. Reynolds

DATE:

05-24-01

BEAR CANYON

Project Location



C.W. MINING CO.

HUNTINGTON, UTAH

STREAM ALTERATION

SCALE:

1" = 25'

DRAWN BY:

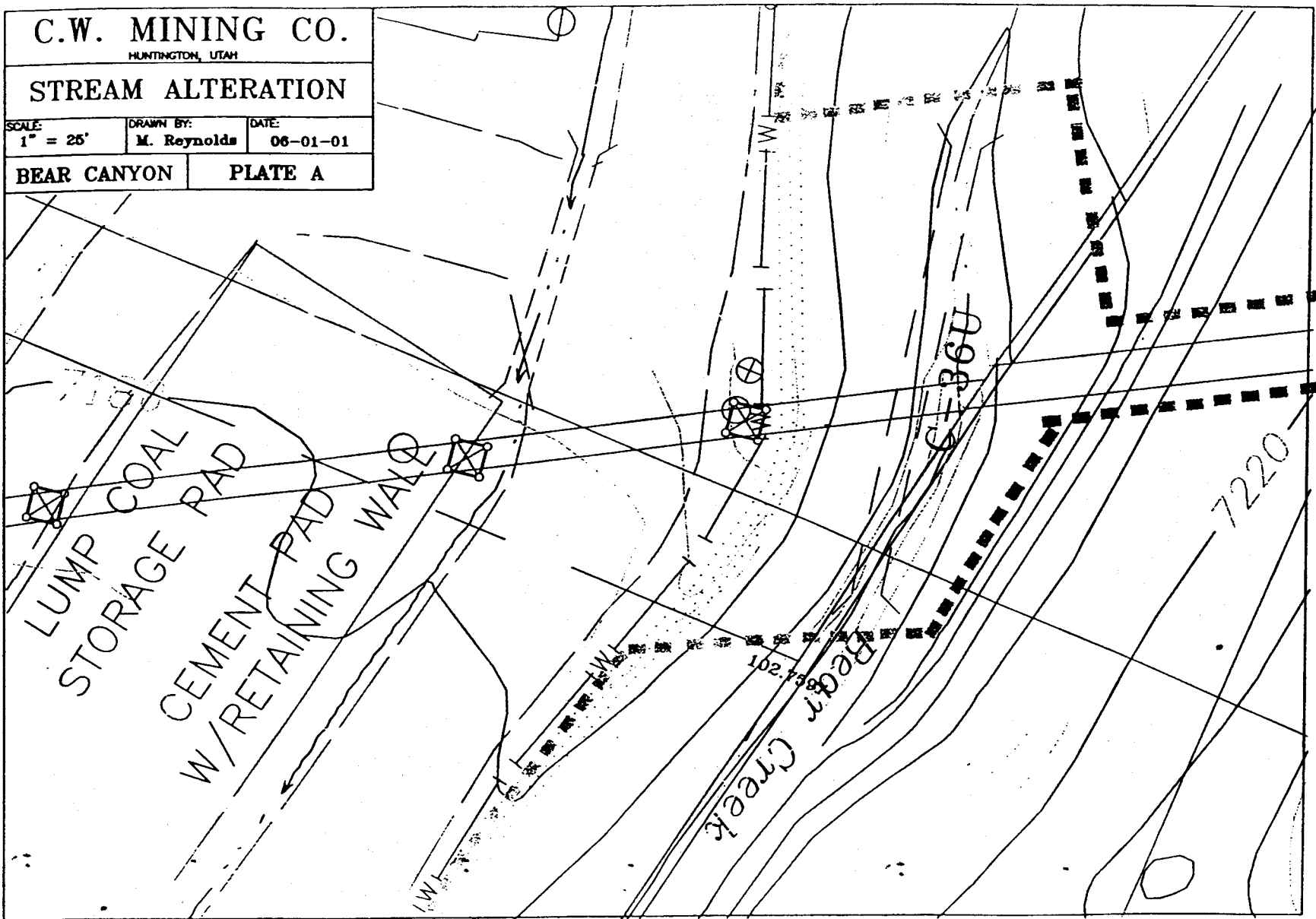
M. Reynolds

DATE:

06-01-01

BEAR CANYON

PLATE A



C.W. MINING CO.

HUNTINGTON, UTAH

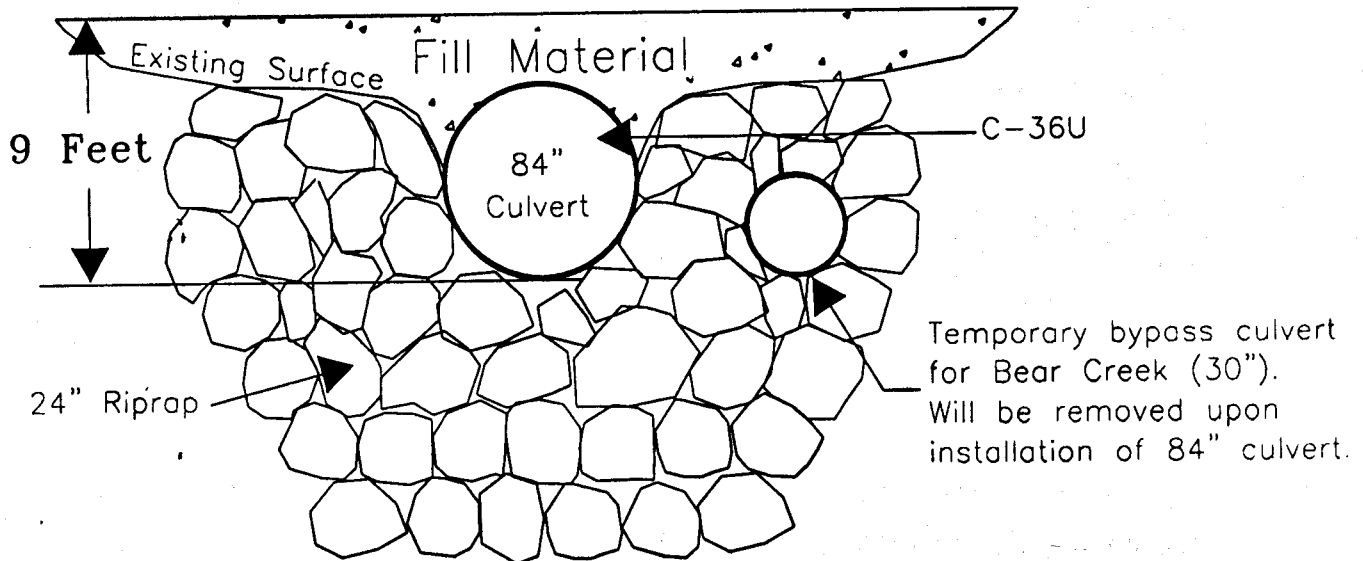
PROJECT AREA A

SCALE: Not To Scale	DRAWN BY: M. Reynolds	DATE: 05-24-01
------------------------	--------------------------	-------------------

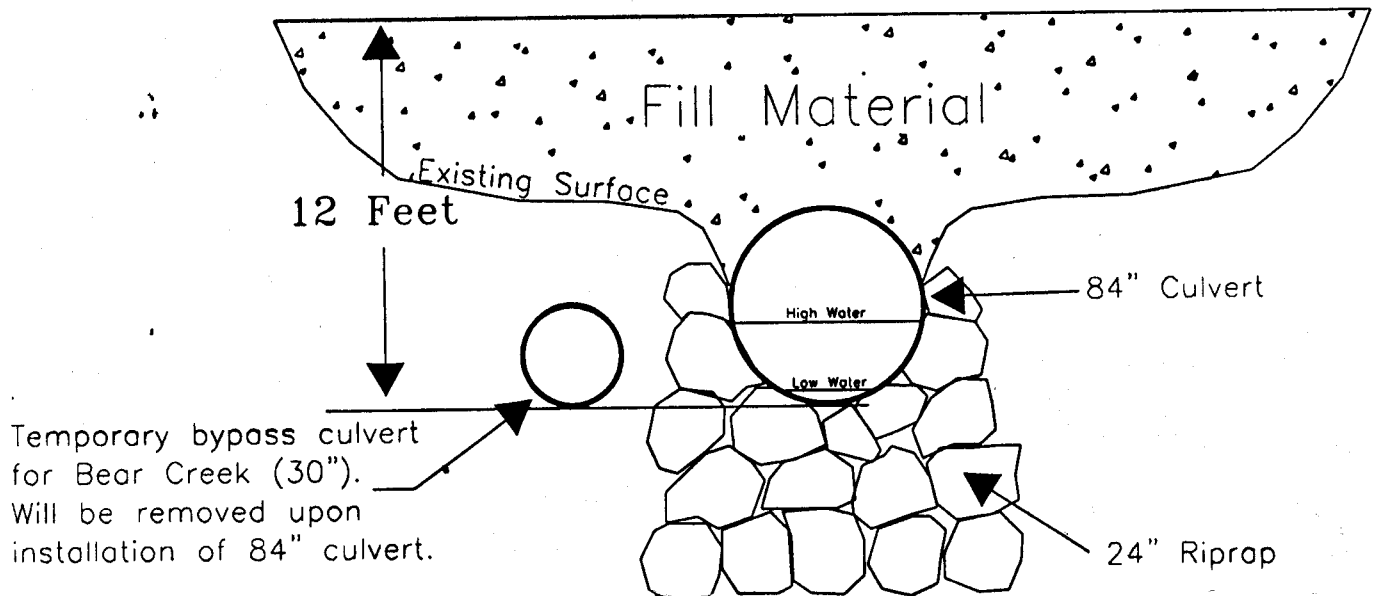
BEAR CANYON

Bear Creek
Culvert Addition

Inlet



Outlet



Worksheet Worksheet for Circular Channel

Project Description	
Worksheet	C-36U
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Depth

Input Data	
Mannings Coefficient	0.024
Slope	0.060000 ft/ft
Diameter	84 in
Discharge	412.70 cfs

Results	
Depth	3.45 ft
Flow Area	18.9 ft ²
Wetted Perimeter	10.89 ft
Top Width	7.00 ft
Critical Depth	5.35 ft
Percent Full	49.2 %
Critical Slope	0.016383 ft/ft
Velocity	21.88 ft/s
Velocity Head	7.44 ft
Specific Energy	10.88 ft
Froude Number	2.35
Maximum Discharge	911.73 cfs
Discharge Full	847.56 cfs
Slope Full	0.014226 ft/ft
Flow Type	Supercritical

C.W. MINING CO.

HUNTINGTON, UTAH

STREAM ALTERATION

SCALE:

1" = 25'

DRAWN BY:

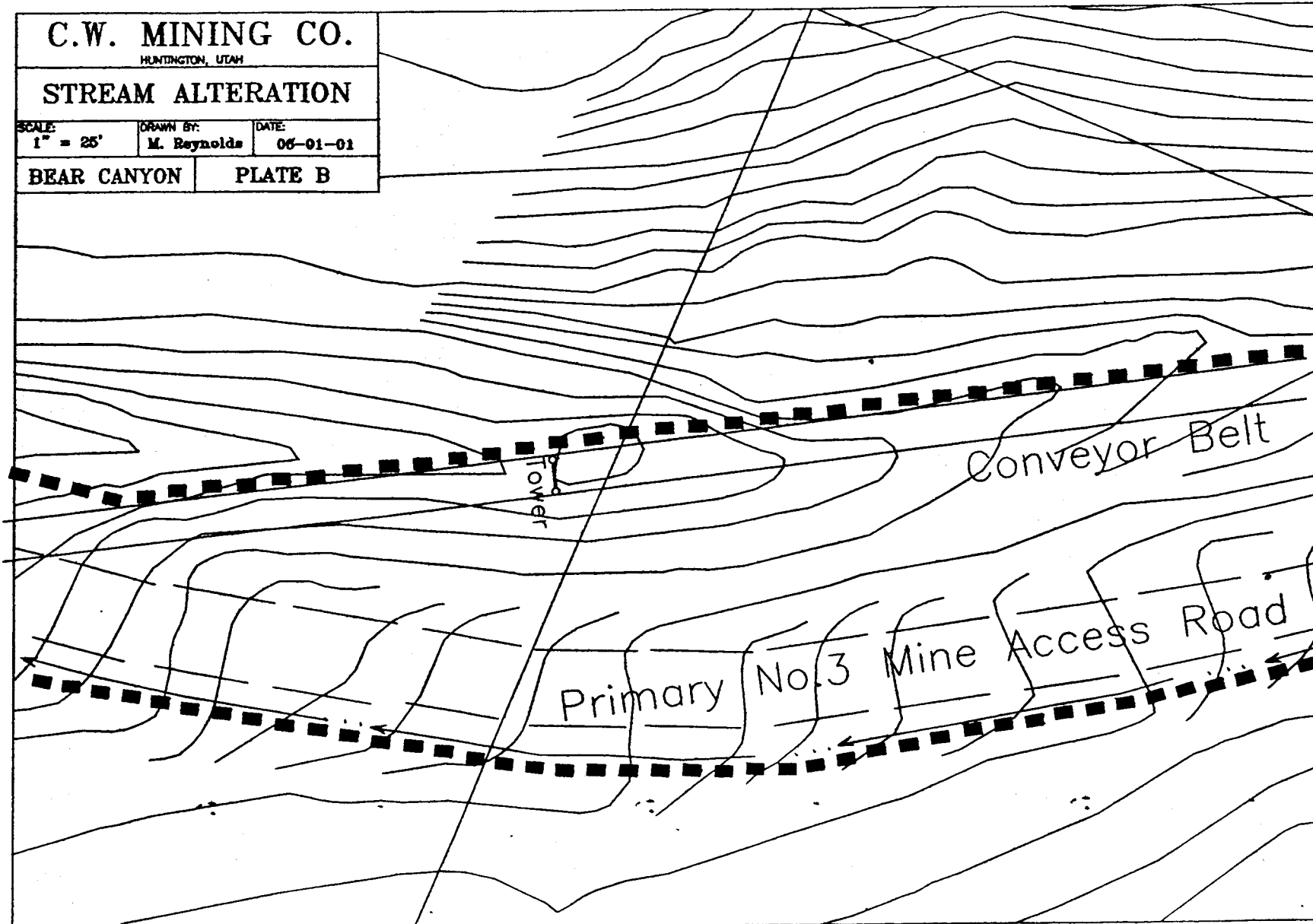
M. Reynolds

DATE:

06-01-01

BEAR CANYON

PLATE B



C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA B

SCALE:

Not To Scale

DRAWN BY:

M. Reynolds

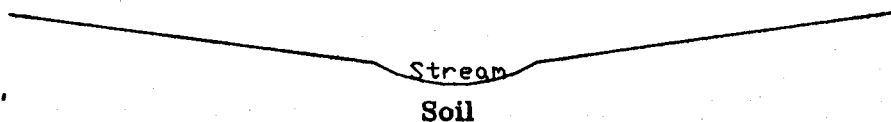
DATE:

05-31-01

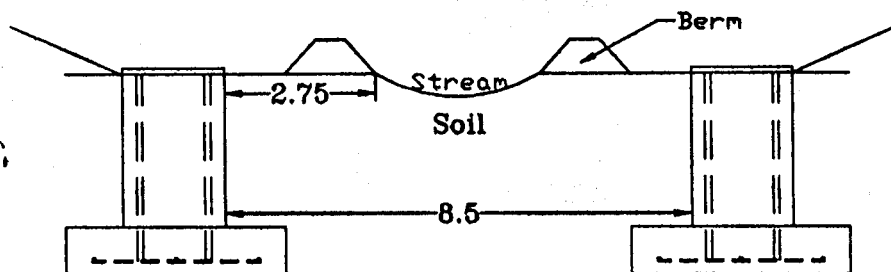
BEAR CANYON

Bear Creek
Culvert Addition

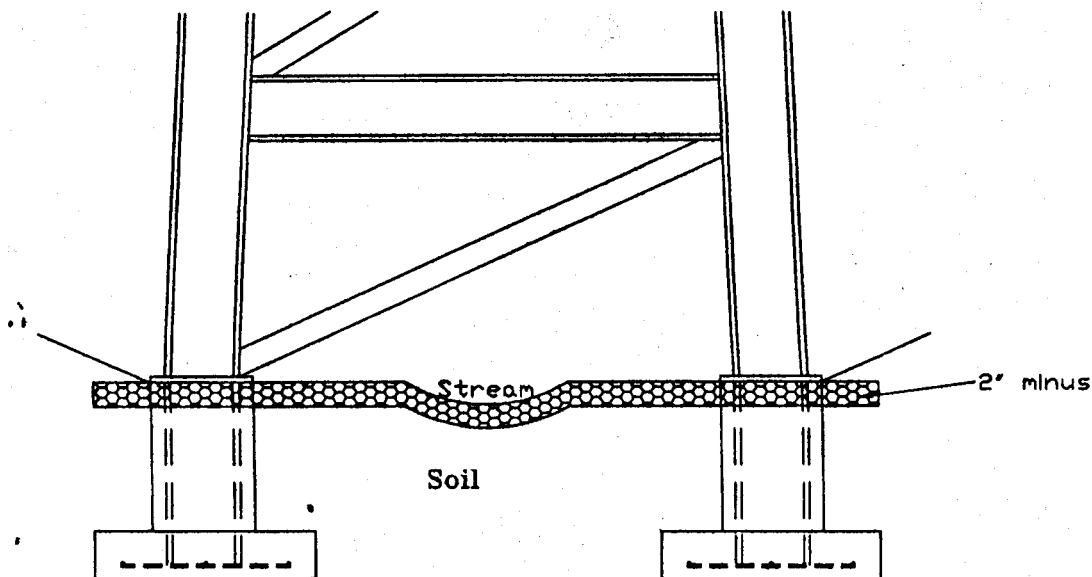
Pre-Construction



During Construction



Post-Construction



C.W. MINING CO.

HUNTINGTON, UTAH

STREAM ALTERATION

SCALE:

1" = 25'

DRAWN BY:

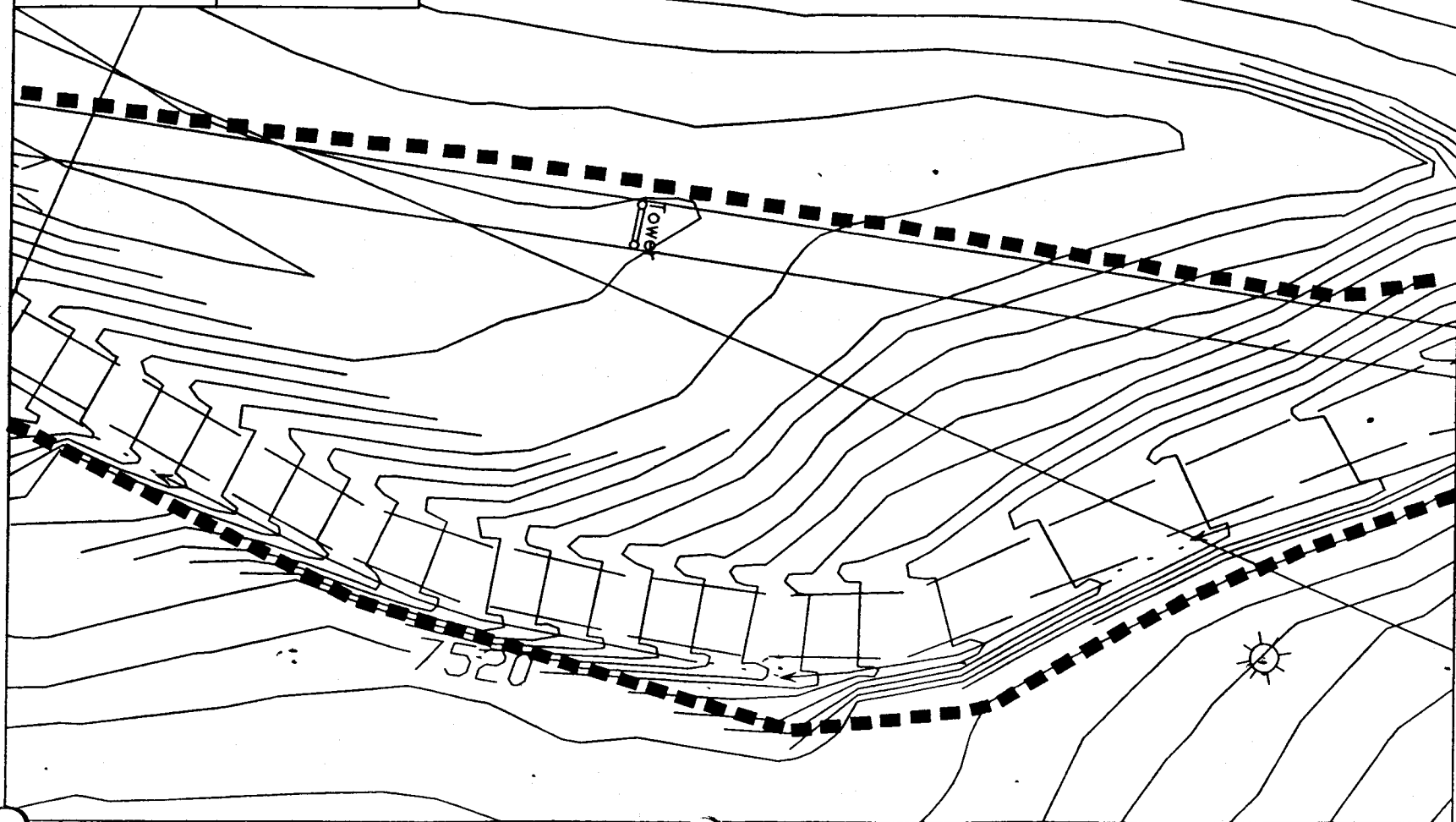
M. Reynolds

DATE:

00-01-01

BEAR CANYON

PLATE C



C.W. MINING CO.

HUNTINGTON, UTAH

PROJECT AREA C

SCALE:

Not To Scale

DRAWN BY:

M. Reynolds

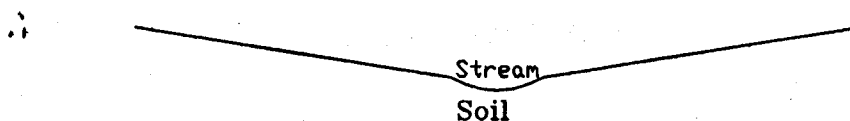
DATE:

05-31-01

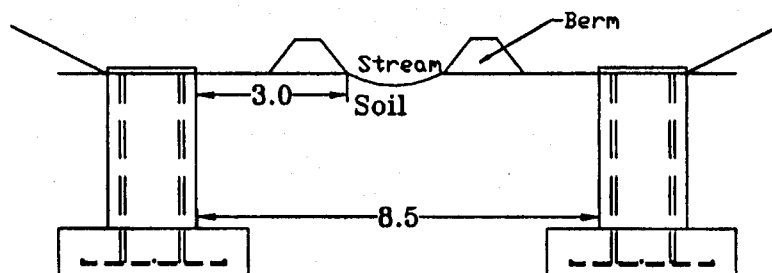
BEAR CANYON

Bear Creek
Culvert Addition

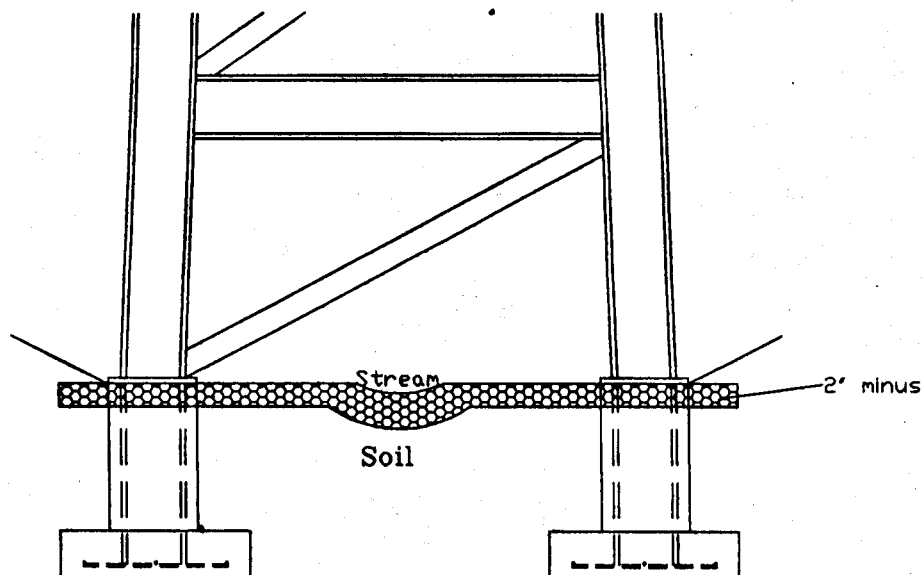
Pre-Construction



During Construction



Post-Construction





State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

August 28, 2001

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Robert L. Morgan
State Engineer

1594 West North Temple, Suite 220
PO Box 146300
Salt Lake City, Utah 84114-6300
801-538-7240
801-538-7467 (Fax)

Charles Reynolds
CO-OP Mining Coming
P.O. Box 1245
Huntington, UT 84528

RE: Stream Channel Alteration Permit Number 01-93-07SA for mining construction and culvert placement on the right fork of Bear Creek in Emery County.
EXPIRATION DATE: August 28, 2002

Your application to Alter a Natural Stream Channel Number 01-93-07SA is hereby approved pursuant to the requirements of Section 73-3-29 of the Utah Code Annotated, 1953. This approval also constitutes compliance with Section 404 (e) of the Clean Water Act (33 USC 1344) pursuant to General Permit 040 issued to the State of Utah by the U.S. Army Corps of Engineers on October 15, 1987.

Work performed under this permit is subject to the following conditions:

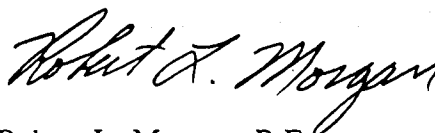
1. The expiration date of this approved application is August 28, 2002. The expiration date may be extended, at the State Engineer's discretion, by submitting a written request outlining the need for the extension and the reasons for the delay in completing the proposed stream alteration.
2. A copy of this approved permit must be kept on-site at any time the work under this approved permit is in progress.
3. Work must be done during low flows. Any flow at the time of construction must be bypassed as proposed on the drawings. This project must be done in a way to limit added sedimentation, hydrocarbons, and coal fines into the stream.
4. A sufficient length of culvert must be installed to allow for stable slopes on the fill over the culvert.
5. Erosion and sediment control measures must be implemented, monitored, and success reported prior to the compliance inspection to minimize the impact to Bear and Huntington Creeks.
6. Sites B and C are on dry channels, but best management practices must be employed to maintain occasional flood flow events.
7. All sites must be vegetated with appropriate grasses and woody vegetation. Proper stream form and function must be restored and vegetation success reported prior to the compliance inspection. Also, plans for reclamation of the stream, once mining is completed, must be addressed in the Utah Division of Oil, Gas, and Mining documentation (CO-OP Mine Plans).

8. Excavated material and construction debris may not be wasted in any stream channel or placed in flowing waters, this will include material such as grease, oil, joint coating, or any other possible pollutant. Excess materials must be wasted at an upland site well away from any channel. Construction materials, bedding material, excavated material, etc. may not be stockpiled in riparian or channel areas. Equipment must also be cleaned and fueled outside of the riparian area.
9. Approval of this application does not authorize trespass, easements, rights-of-way, or any other access or land use permits. It is the responsibility of the applicant to obtain any such authorizations as may be necessary for this proposal.
10. Within 30 days after the completion of this project, the State Engineer's office must be contacted for a compliance inspection. Failure to provide such notification would invalidate U.S. Army Corps of Engineers General Permit 040, thereby placing the applicant in violation of Section 404 of the Clean Water Act.

This Decision is subject to the provisions of Rule R655-6 of the Division of Water Rights and to Sections 63-46b-13 and 73-3-14 of the Utah Code Annotated, 1953 as amended, which provide for filing either a Request for Reconsideration with the State Engineer, or an appeal with the appropriate District Court. A Request for Reconsideration must be filed with the State Engineer within 20 days of the date of this decision. However, a Request for Reconsideration is not a prerequisite for a court appeal. A court appeal must be filed within 30 days after the date of this Decision, or if a Request for Reconsideration has been filed, within 30 days after the date the Request for Reconsideration is denied. A Request for Reconsideration is considered denied when no action is taken 20 days after the Request is filed.

If you have any questions or need further clarification, please contact Daren Rasmussen at 801-538-7377.

Sincerely,



Robert L. Morgan, P.E.
State Engineer

RLM/dr/jm

pc: Corps of Engineers
Dave Ruiter - EPA
Field Supervisor - U.S. Fish & Wildlife
Jim Dykmann - State History
Carolyn Wright - State Planning
Mark Page - Regional Engineer
Derris Jones - Regional Wildlife Habitat Manager
Bill Bradwisch - Aquatic Habitat Coordinator

After further evaluation C.W. Mining Co. elected not to alter the stream in Area A. The stream was never culverted in this location and culvert C-36U is located in a different area.